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10/797,105	03/11/2004	Sung-hee Hwang	1793.1194	4574

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EXAMINER

ALUNKAL, THOMAS D

ART UNIT	PAPER NUMBER
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2627

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/797,105	Applicant(s) HWANG ET AL.	
	Examiner Thomas D. Alunkal	Art Unit 2627	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 February 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 and 27-38 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-25 and 27-38 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

Applicant's arguments with respect to claims 1-38 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-25 and 27-38 are rejected under 35 U.S.C. 102(e) as being anticipated by Park et al (hereafter Park) (US 7,188,271).

Applicant cannot rely upon the foreign priority papers to overcome this rejection because a translation of said papers has not been made of record in accordance with 37 CFR 1.55. See MPEP § 201.15.

Regarding claim 1, Park discloses a method of managing disc defects occurring on a write once disc (Title) that is a single recording layer disc in which a lead-in area, a data area and a lead-out area are sequentially formed and a first spare area and a second spare area are formed at both ends of the data area, respectively, (Figure 3, *disc structure*) the method comprising: allocating a first temporary defect management area (TDMA) to at least one of the lead-in area and the lead-out area (Figure 3,

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TDMA1), allocating a second TDMA between the first spare area and a user data area or between the user data area and the second spare area (Figure 3, *TDMA2*), allocating a defect management area (DMA) to at least one of the lead-in area and the lead-out area (Figure 3, *DMA1-DMA4*), and performing disc defect management using the first and second TDMA's, and the DMA, including recording temporary management information, which is most recently updated in the first or second TDMA, in the DMA (Column 2, lines 52-65).

Regarding claim 2, Park discloses wherein the performing disc defect management comprises: updating and recording temporary management information in the second TDMA when a predetermined number of clusters are recorded in the user area or when a verify-after-write method is performed a predetermined number of times (Column 5, line 66-Column 6, line 6) and updating and recording the temporary management information in the first TDMA in recording operation units (Column 5, line 66-Column 6, line 6).

Regarding claim 3, Park discloses a method of managing disc defects occurring on a write once disc (Title) that is a dual layer optical disc including a first recording layer in which a lead-in area, a data area, and an outer area are formed along with a recording path and a first spare area and a second spare area are respectively formed at both ends of the data area, respectively, and a second recording layer in which an outer area, a data area, and a lead-out area are formed along a recording path and a third spare area and a fourth spare area are respectively formed at both ends of the data area (Figure 5, *Dual Layer BD-WO*), the method comprising: allocating a first

temporary defect management area (TDMA) to at least one of the lead-in area, the lead-out area, and the outer area (Figure 5, *TDMA1*), allocating a second TDMA between the first spare area and a user data area in the data area, on the first recording layer of the write once disc, and/or between the forth spare area and a user data area in the data area, on the second recording later of the write once disc (Figure 5, *TDMA2*), allocating a defect management area (DMA) to at least one of the lead-in area, the lead-out area, and the outer area (Figure 5 *DMA1a-4a* and *DMA1b-4b*), and performing disc defect management using the first and second TDMA's, and the DMA including temporary management information which is most recently updated in the first or second TDMA, in the DMA (Column 2, lines 52-65).

Regarding claim 4, Park discloses wherein the performing disc defect management comprises: updating and recording temporary management information in the second TDMA when a predetermined number of clusters are recorded in the user area or when a verify-after-write method is performed a predetermined number of times (Column 5, line 66-Column 6, line 6) and updating and recording the temporary management information in the first TDMA in recording operation units (Column 5, line 66-Column 6, line 6).

Regarding claim 5, Park discloses a method of managing disc defects occurring on a write once disc (Title), the method comprising: updating a second temporary defect management area (TDMA) of a data area of the write once disc whenever data is recorded in the data area in a predetermined recording period (Column 5, line 66-Column 6, line 6), and updating a first TDMA formed in at least one of a lead-in area, a

lead-out area, and an outer area of the write once disc whenever data is recorded in the data area of the write once disc in another predetermined recording period (Column 5, line 66-Column 6, line 6), and recording temporary management information which is most recently updated in the first or second TDMA, in a defect management area (DMA) formed in at least one of the lead-in area, the lead-out area, and the outer area (Figure 3 and Column 2, lines 52-65).

Regarding claim 6, Park discloses wherein the updating the second TDMA comprises updating and recording temporary management information whenever a predetermined number of clusters are recorded in the data area or a verify-after-write method is performed a predetermined number of times (Column 5, line 66-Column 6, line 6).

Regarding claim 7, Park discloses wherein the updating the first TDMA comprises updating and recording temporary management information in recording operation units (Column 5, line 66-Column 6, line 6).

Regarding claim 8, Park discloses wherein the updating the second TDMA further comprises: recording data in predetermined units; verifying the recorded data to detect a defective portion of the write once disc where a defect occurs; temporarily storing information pointing to the defective portion and information pointing to a replacement portion for the defective portion in a memory; reading the information stored in the memory and recording the read information as temporary defect information; and recording temporary defect management information managing the recorded temporary defect information (Column 6, lines 13-33).

Regarding claims 9 and 10, these claims correspond to method claims 1 and 2 disclosed by Park, while further including a disc drive (Figure 2 of Park). Thus, claims 9 and 10 are rejected over the same grounds as claims 1 and 2, respectively.

Regarding claims 11 and 12, these claims correspond to method claims 3 and 4 disclosed by Park, while further including a disc drive (Figure 2 of Park). Thus, claims 11 and 12 are rejected over the same grounds as claims 3 and 4, respectively.

Regarding claims 13-16, these claims correspond to method claims 5-8 disclosed by Park, while further including a disc drive (Figure 2 of Park). Thus, claims 13-16 are rejected over the same grounds as claims 5-8, respectively.

Regarding claims 17-19, these claims correspond to method claims 1-2 disclosed by Park, while further including a write once disc (Figure 3 of Park). Thus, claims 17-19 are rejected over the same grounds as claims 1-2.

Regarding claim 20, Park discloses wherein temporary management information, which is most recently recorded in the first or second TDMA, is recorded in the DMA for disc finalization (Column 6, lines 6-11).

Regarding claims 21-24, these claims correspond to method claims 3-4 disclosed by Park, while further including a write once disc (Figure 3 of Park). Thus, claims 21-24 are rejected over the same grounds as claims 3-4.

Regarding method claims 25 and 27-38, these claims contain limitations similar to those disclosed in method claims 1-4 (reciting both single and dual layer discs), and are rejected over the same grounds.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Ito et al (US 6,160,778) disclose an information recording medium containing defect management information. Kim et al (US 6,564,345) disclose a method for creating defect management information in a recording medium. Takashahi (US PgPub 2002/0136537) discloses an information recording medium capable of defect management. Ohata et al (US 6,469,978) disclose a rewritable optical disk with a spare area and an optical disk processing apparatus.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thomas D. Alunkal whose telephone number is (571)270-1127. The examiner can normally be reached on M-F 7:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wayne Young can be reached on (571)272-7582. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Thomas Alunkal



WAYNE YOUNG
SUPERVISORY PATENT EXAMINER